AMENDMENTS TO THE CLAIMS

Please amend the claims as follows without prejudice or disclaimer.

Cancel claims 1-51.

Insert new claims 52-81.

1-51. Cancelled

52. (New) A peptide having the ability to bind pertussis toxin, the peptide being selected from the group consisting of:
RSSHCRHRNCHTITRGNMRIETPNNIRKDA (pp26-5);
RSTMNTNRMDIQRLMTNHVKRDSSPGSIDA (pp26-6);
RSNVIPLNEVWYDTGWDRPHRSRLSIDDDA (pp26-9);
RSWRDTRKLHMRHYFPLAIDSYWDHTLRDA (pp26-15);
SGCVKKDELCARWDLVCCEPLECIYTSELYATCG (G-9);
SGCVKKDELCELAVDECCEPLECFQMGHGFKRCG (G-10);
SGCVKKDELCSQSVPMCCEPLECKWFNENYGICGS (G-15);
SGCVKKDELCELAIDECCEPLECTKGDLGFRKCG (G-19);
NVIPLNEVWYDTGWDRPHRSRLSIDDD,
VGTTIRIAQDTEHYRNVYHKLSQYSR,
WTSMQGETLWRTDRLATTKTSMSHPP,
LSALRRTERTWNTIHQGHHLEWYPPA,
LSRLATTERTWDRIHQGHHLEWHPPA,
TMNTNRMDIQRLMTNHVKRDSSPGSI,
LSALMRTERTWNTIHQGHHLEWYPPA,
CLATRNGFVMNTDRGTYVKRPTVLQ, and
CLATRNGFVQMNTDRGTYVKRPTVLQ.

53. (New) A peptide having the ability to bind pertussis toxin and the amino acid sequence RSNVIPLNEVWYDTGWDRPHRSRLSIDDDA (pp26-9).

54. (New) A peptide having the ability to bind pertussis toxin and the amino acid sequence SGCVKKDELCSQSVPMCCEPLECKWFNENYGICGS (G-15).

55. (New) A peptide of claim 52 wherein at least one amino acid is conservatively substituted.

56. (New) A peptide of claim 53 wherein at least one amino acid is conservatively substituted.

57. (New) A peptide of claim 54 wherein at least one amino acid is conservatively substituted.

58. (New) A peptide having the ability to bind pertussis toxin and comprising the amino acid sequence selected from the group consisting of:
XXAXRXXXXXXNTXXXXXXXXXT,
XXAXRXXXXXXNTXXXXXXXXXY, and
VXXXXXXXXDTXXXXRXXXXXLS,
where X is any amino acid.

59. (New) A peptide having the ability to bind pertussis toxin and comprising the amino acid sequence LGHGLGYAY.

60. (New) A peptide of claim 59 further comprising the amino acid sequence ELAVD, ELAID, or ARWDLV.

61. (New) A peptide having the ability to bind pertussis toxin and comprising at least one of the amino acid sequences TTASKS or KWTNEHFGT.

62. (New) A peptide of claim 61 comprising the amino acid sequences TTASKS and KWTNEHFGT.

63. (New) A method for generating a DNA-peptide fusion, said method comprising:
(a) covalently bonding a nucleic acid reverse-transcription primer to an RNA encoding a peptide, said reverse-transcription primer being bound to a peptide acceptor;
(b) translating said RNA to produce the peptide, the peptide being covalently bound to the reverse-transcription primer; and,
(c) reverse transcribing said RNA to produce a DNA-peptide fusion;
wherein the peptide of the DNA-peptide fusion has binding affinity for pertussis toxin.

64. (New) A method for generating a DNA-peptide fusion, said method comprising:
(a) generating an RNA-peptide fusion;
(b) hybridizing a nucleic acid reverse-transcription primer to said fusion;
(c) covalently bonding said primer to said fusion; and

(d) reverse transcribing the RNA of said RNA-peptide fusion to produce a DNA-peptide fusion;

wherein the peptide of the DNA-peptide fusion has binding affinity for pertussis toxin.

65. (New) A method for generating a DNA-peptide fusion comprising:

(a) providing an RNA molecule covalently bonded to a peptide acceptor;

(b) covalently bonding a nucleic acid reverse-transcription primer to the molecule of step (a);

(c) translating said RNA molecule to produce a peptide, and

(d) reverse transcribing said RNA molecule to produce a DNA-peptide fusion;

wherein the peptide of the DNA-peptide fusion has binding affinity for pertussis toxin.

66. (New) A method for isolating a DNA-peptide fusion in which the peptide has binding affinity for pertussis toxin comprising the steps of, in combination:

(a) covalently bonding a nucleic acid reverse-transcription primer to an RNA encoding a peptide, said reverse-transcription primer being bound to a peptide acceptor;

(b) translating the RNA to produce the peptide, the peptide being covalently bound to the reverse-transcription primer; and,

(c) reverse transcribing the RNA to produce a DNA-peptide fusion;

(d) contacting the DNA-peptide fusion with pertussis toxin bound to a solid support to form a DNA-peptide fusion-pertussis toxin complex;

(e) isolating the complex from DNA-peptide fusions that did not complex with pertussis toxin; and,

(f) isolating the DNA-peptide fusion from the DNA-peptide fusion-pertussis toxin complex.

67. (New) A method for purifying pertussis toxin comprising contacting a biological solution containing pertussis toxin with a peptide of claim 52 bound to a solid

support to form a pertussis toxin-peptide complex and isolating the complex from other components in the biological solution.

68. (New) A method for purifying pertussis toxin comprising contacting a biological solution containing pertussis toxin with a peptide of claim 53 bound to a solid support to form a pertussis toxin-peptide complex and isolating the complex from other components in the biological solution.

69. (New) A method for purifying pertussis toxin comprising contacting a biological solution containing pertussis toxin with a peptide of claim 54 bound to a solid support to form a pertussis toxin-peptide complex and isolating the complex from other components in the biological solution.

70. (New) A method for purifying pertussis toxin comprising contacting a biological solution containing pertussis toxin with a peptide of claim 55 bound to a solid support to form a pertussis toxin-peptide complex and isolating the complex from other components in the biological solution.

71. (New) A method for purifying pertussis toxin comprising contacting a biological solution containing pertussis toxin with a peptide of claim 56 bound to a solid support to form a pertussis toxin-peptide complex and isolating the complex from other components in the biological solution.

72. (New) A method for purifying pertussis toxin comprising contacting a biological solution containing pertussis toxin with a peptide of claim 57 bound to a solid support to form a pertussis toxin-peptide complex and isolating the complex from other components in the biological solution.

73. (New) A method for purifying pertussis toxin comprising contacting a biological solution containing pertussis toxin with a peptide of claim 58 bound to a solid support to form a pertussis toxin-peptide complex and isolating the complex from other components in the biological solution.

74. (New) A method for purifying pertussis toxin comprising contacting a biological solution containing pertussis toxin with a peptide of claim 59 bound to a solid support to form a pertussis toxin-peptide complex and isolating the complex from other components in the biological solution.

75. (New) A method for purifying pertussis toxin comprising contacting a biological solution containing pertussis toxin with a peptide of claim 60 bound to a solid support to form a pertussis toxin-peptide complex and isolating the complex from other components in the biological solution.

76. (New) A method for purifying pertussis toxin comprising contacting a biological solution containing pertussis toxin with a peptide of claim 61 bound to a solid support to form a pertussis toxin-peptide complex and isolating the complex from other components in the biological solution.

77. (New) A method for purifying pertussis toxin comprising contacting a biological solution containing pertussis toxin with a peptide of claim 62 bound to a solid support to form a pertussis toxin-peptide complex and isolating the complex from other components in the biological solution.

78. (New) A DNA-peptide fusion prepared using the method of claim 63.

79. (New) A DNA-peptide fusion prepared using the method of claim 64.

80. (New) A DNA-peptide fusion prepared using the method of claim 65.

81. (New) A DNA-peptide fusion prepared using the method of claim 66.